

The process of extracting gold from the ground inevitably results in significant environmental impacts. However, Randgold invests significantly to manage and minimise these impacts, and to ensure we are responsible stewards of the environment we operate in.

Environmental issues are important to our business and important to our stakeholders, for example 'water pollution' and 'cyanide management' ranked as two of the highest priority issues in our 2016 materiality assessment. From a business point of view, environmental liabilities constitute a major corporate risk factor, while increases in energy efficiency and water and waste recycling lead to valuable day to day cost savings. Protecting the quality of water, air and biodiversity are also essential to strong relationships with our host countries, communities and shareholders.

This chapter explains our overall approach to environmental risk management with specific insights on climate risk, water risk, biodiversity, waste (including cyanide) and air quality.

OVERVIEW OF ENVIRONMENTAL MANAGEMENT

All Randgold mines have an Environmental Management System (EMS) in place to identify and manage environmental risks in accordance with national legislation and IFC Performance Standards. These systems are certified against the international ISO 14001 best practice standard, and are externally audited regularly for compliance.

In 2016, our Malian mines Loulo and Goukoto also passed environmental conformity audits conducted every five years by the Malian government to ensure operations are compliant with approved environmental management plans. No major issues were found. Kibali and Tongon passed similar assessments in 2015.

The technical details of our EMSs are based on the detailed Environmental and Social Impact Assessments (ESIAs) carried out during the feasibility stage of any project. In 2016 we took the decision to shift our Massawa exploration project in Senegal to feasibility stage and in 2017 we will be conducting ESIAs both there and for a potential extension at Loulo.

One of the most important ways we assess our environment risk management systems is through the number of environmental incidents that occur.

We record three types of environmental incidents, with a target to have zero class 1 incidents each year. The three types of incident are:

- **Class 1** – major incidents that result in death or injury of people or destruction of community property or husbandry;
- **Class 2** – medium incidents involving material disruption to production or uncontrolled release of contaminated effluent outside the boundary fence of an operation, and;
- **Class 3** – minor incidents involving the controlled or uncontrolled release of effluent or pollutants within the boundary fence of the operation.

As indicated in the table below, 2016 was the second consecutive year we had zero class 1 incidents. Our only class 1 incident in the last six years occurred at our Tongon mine in Côte d'Ivoire in December 2014 and a full sign-off from the national environmental regulator (CIAPOL) was received in 2016 to confirm that all damage from the incident had been rectified.

We had just one class 2 incident in 2016, a 90% drop on 2015 and the lowest level for over seven years. The incident occurred at our Kibali mine when expired malaria chemicals were deposited at the organic waste disposal site, leading to the death of a few yellow-billed kite birds. In response to this incident we have provided additional hazardous waste training to staff.

Similarly, we saw a 17% drop in class 3 incidents in 2016. It should be noted that it can be a positive development to have class 3 incidents reported as we use them as an early warning system that can help prevent the occurrence of more serious environmental incidents.

FIGURE 18: ENVIRONMENTAL INCIDENTS

at 31 December	Number of class 1 incidents			Number of class 2 incidents			Number of class 3 incidents		
	2016	2015	2014	2016	2015	2014	2016	2015	2014
Loulo	0	0	0	0	5	10	20	40	47
Goukoto	0	0	0	0	0	0	17	9	21
Morila	0	0	0	0	0	0	8	0	1
Kibali	0	0	0	1	5	9	19	20	17
Tongon	0	0	1	0	1	1	6	16	10
GROUP	0	0	1	1	11	20	70	85	96

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Class 2 – medium incidents involving material disruption to production or uncontrolled release of contaminated effluent outside the boundary fence of an operation.

Class 3 – minor incidents involving the controlled or uncontrolled release of effluent or pollutants within the boundary fence of the operation.